Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

      1-13.   (Canceled)

      14.   (Currently amended)   A method to determine ~~outcome of~~ risk of cancer recurrence in a human subject having ER+ (estrogen receptor positive) breast cancer if treated with ~~an antiestrogen agent against breast cancer~~ tamoxifen or letrozole, said method comprising:

      producing cDNA copies of homeobox B13 (HoxB13) ~~and interleukin 17B receptor (IL17BR)~~ mRNA from a sample of ER+ (estrogen receptor positive) breast cancer cells from said human subject,

      determining ~~a ratio of~~ HoxB13 ~~to IL17BR~~ mRNA expression levels based on said cDNA copies, and

      determining the ~~ratio as higher than a mean (average) ratio of~~ expression levels as decreased relative to average HoxB13 ~~and IL17BR~~ RNA expression levels in ER+ breast cancer cells ~~and as indicating an outcome comprising cancer that is non-responsive to said antiestrogen agent;~~

      ~~wherein said mean (average) ratio of HoxB13 and IL17BR RNA expression levels is determined from a mean (average) of HoxB13 mRNA expression levels, and a mean (average) of IL17BR mRNA expression levels, in ER+ breast cancer cell~~ samples from human breast cancer subjects, wherein decreased expression levels indicate the lack of cancer recurrence in the subject if treated with tamoxifen or letrozole ~~that responded to treatment with said antiestrogen agent against breast cancer and from human breast cancer subjects that did not respond to treatment with said antiestrogen agent, and~~

      ~~wherein said antiestrogen agent is tamoxifen or letrozole.~~

      15.   (Canceled).

      16.   (Currently amended)   The method of claim 14 wherein ~~said antiestrogen agent is~~ decreased expression levels indicated the lack of cancer recurrence in the subject if treated with tamoxifen.

17.   (Canceled).

18.   (Currently amended)   The method of claim 14 wherein said cDNA copies of HoxB13 ~~and IL17BR~~ RNA are used for RNA amplification from said sample of breast cancer cells.

19.   (Currently amended)   The method of claim 14 wherein said cDNA copies of HoxB13 ~~and IL17BR~~ RNA are used in quantitative PCR.

20.   (Currently amended)

21.   (Previously presented)   The method of claim 14 wherein said sample is a formalin fixed paraffin embedded (FFPE) sample.

22.   (Original)   The method of claim 14 wherein said sample is obtained by a minimally invasive technique or selected from core biopsy, excisional biopsy, a ductal lavage sample, a fine needle aspiration sample, or cells microdissected from said sample.

23.   (Currently amended) A method ~~to predict an expected lack of response to treatment with an antiestrogen agent against breast cancer~~ of predicting survival outcome in a human ER+ (estrogen receptor positive) breast cancer patient, said method comprising
        producing cDNA copies of homeobox B13 (HoxB13) ~~and interleukin 17B receptor (IL17BR)~~ mRNA from a sample of ER+ (estrogen receptor positive) breast cancer cells from said patient,
        determining ~~a ratio of~~ HoxB13 ~~and IL17BR~~ RNA expression levels based on said cDNA copies, and
        determining the ~~ratio as higher than a mean (average) ratio of~~ expression levels as decreased relative to average HoxB13 ~~and IL17BR~~ RNA expression levels in ER+ breast cancer cells ~~and as indicating said cancer as expected to lack response to treatment with said antiestrogen agent;~~
        ~~wherein said mean (average) ratio of HoxB13 and IL17BR RNA expression levels is determined from a mean (average) of HoxB13 mRNA expression levels, and a mean (average) of IL17BR mRNA expression levels, in ER+ breast cancer cell samples~~ from human breast cancer subjects, wherein decreased expression levels indicate the likelihood of a good survival outcome in the patient if treated

with tamoxifen or letrozole ~~that responded to treatment with said antiestrogen agent against breast cancer and from human breast cancer subjects that did not respond to treatment with said antiestrogen agent, and wherein said antiestrogen agent is tamoxifen or letrozole~~.

24.   (Canceled).

25.   (Currently amended)   The method of claim 23 wherein ~~said antiestrogen agent is~~ decreased expression levels indicate the likelihood of a good survival outcome in the patient if treated with tamoxifen.

26.   (Canceled).

27.   (Currently amended)   The method of claim 23 wherein said cDNA copies of HoxB13 ~~and IL17BR~~ RNA are used for RNA amplification from said sample of breast cancer cells.

28.   (Currently amended)   The method of claim 23 wherein said cDNA copies of HoxB13 ~~and IL17BR~~ RNA are used in quantitative PCR.

29.   (canceled)

30.   (Previously presented)   The method of claim 23 wherein said sample is a formalin fixed paraffin embedded (FFPE) sample.

31.   (Previously presented)   The method of claim 23 wherein said sample is obtained by a minimally invasive technique or selected from core biopsy, excisional biopsy, a ductal lavage sample, a fine needle aspiration sample, or cells microdissected from said sample.

32-51.   (Canceled).

52.   (Previously presented)   The method of claim 14 wherein said cDNA copies comprise a HoxB13 sequence selected from SEQ ID NOS: 6, 7, 10, 11-31, 35 or 37.

53.   (canceled)

54.   (Previously presented)   The method of claim 23 wherein said cDNA copies comprise a HoxB13 sequence selected from SEQ ID NOS: 6, 7, 10, 11-31, 35 or 37.

55-73. (Canceled).

71.   (Currently amended)   The method of claim 14 wherein ~~said agent is~~ <u>decreased expression levels indicated the lack of cancer recurrence in the subject if treated with</u> letrozole.

72.   (canceled)

73.   (Currently amended)   The method of ~~claim 72~~ <u>claim 23</u> wherein ~~said agent is~~ <u>decreased expression levels indicate the likelihood of a good survival outcome in the patient if treated with</u> letrozole.